

### REMARKS

In response to the Office Action dated January 9, 2006, Applicants respectfully request reconsideration based on the above amendments and the following remarks. Applicants respectfully submit that the claims as presented are in condition for allowance.

Claims 1-7 were rejected under 35 U.S.C. § 103 as being unpatentable over admitted prior art (APA) in view of Aimoto. This rejection is traversed for the following reasons.

Claim 1 recites "heating a metal base to melt solder in grooves formed in said base, said base having a first coefficient of thermal expansion, said solder having a second coefficient of thermal expansion lower than said first coefficient of thermal expansion; positioning fins in said grooves, said fins having said first coefficient of thermal expansion; cooling said metal base and said solder, said metal base experiencing tensile stresses and said solder experiencing compressive stresses to form a concavity in a thermal face of said base." Thus, in claim 1, the base experiences tensile stresses and said solder experiences compressive stresses. This is the opposite of what is described in the APA. The Examiner relies on Aimoto as allegedly teaching this feature, but Aimoto does not teach the use of different solders to achieve the forces in claim 1.

Figure 3 of Aimoto appears to show the heat sink 3 warping after joining the heat sink 3 to substrate 1. Apparently, Aimoto addresses this warpage by shaping heat sink 3 prior to the joining as shown in Figures 1a and 1b. Aimoto, however, is silent as to how the warpage results. There is no disclosure in the brief English Abstract that the warpage is caused by the coefficients of thermal expansion of the base, fins and solder as recited in claim 1. Thus, even if the APA and Aimoto are combined, the features of claim 1 do not result.

Furthermore, claim 1 recites "planing said thermal face to form a planar thermal face; wherein said tensile stresses and said compressive stresses relax over time such that said planar thermal face becomes convex." The APA teaches planing the thermal face, but the thermal face then becomes concave, not convex. Aimoto also does not teach this feature. Thus, even if the APA and Aimoto are combined, the features of claim 1 do not result.

For at least the above reasons, claim 1 is patentable over APA and Aimoto. Claims 2-7 variously depend from claim 1 and are patentable APA and Aimoto for at least the reasons advanced with reference to claim 1.

In view of the foregoing remarks and amendments, Applicants submit that the above-identified application is now in condition for allowance. Early notification to this effect is respectfully requested.

If there are any charges with respect to this response or otherwise, please charge them to Deposit Account 09-0463.

Respectfully submitted,

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